EXHIBIT 2

[Excerpts of Post-Injunction Surrebuttal Expert Report of Barbara Ann Frederiksen-Cross, dated May 20, 2020 – REDACTED]

IN THE UNITED STATES DISTRICT COURT

FOR THE DISTRICT OF NEVADA

ORACLE USA, INC.; a Colorado corporation; ORACLE AMERICA, INC.; a Delaware corporation; and ORACLE INTERNATIONAL CORPORATION, a California corporation, Plaintiffs, v. RIMINI STREET, INC., A NEVADA CORPORATION; AND SETH RAVIN, AN INDIVIDUAL, Defendants.	CIVIL CASE NO. 2:10-cv-0106 LRH-VCF

Post-Injunction Surrebuttal Expert Report of Barbara Ann Frederiksen-Cross

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20.   Professor Astrachan does not dispute that Rimini does not develop updates on an individual, customer-by-customer basis. Nor does Professor Astrachan dispute that development is regularly split into two phases: a "Scrum" (or prototype) phase, where only a small number of customers are used to develop detailed "Dev Instruction" and a "Kanban" (or retrofit) phase where the development work from the Scrum phase is used to rapidly distribute the update to the majority of Rimini's customers receiving the update.[31] Professor Astrachan likewise agrees that modified environments are derivative works.[32]

21.   Accordingly, and as explained in my report, Rimini's practice of creating, storing and distributing derivative-work Dev Instruction, test plans, and code files—even if those files do not contain literal copies of Oracle code—violates the Injunction.[33] Likewise, notwithstanding the fact that use of an Oracle PeopleSoft or JDE environment copies Oracle copyrighted material at least into RAM, any use of one customer's environment to support other customers violates the Injunction.[34] This includes creating common test plans, Dev Instructions, or "Rimini" code, regardless of whether the resultant work product contain Oracle code, and regardless of whether such work product is considered a derivative work.

22.   As discussed in my report, my analysis of Rimini's AFW database records showed substantial use of the AFW program. Rimini incorporated ████████████████████ in AFW features and cross-used specific customer-associated environments to develop the program it later widely distributed.[35] AFW is now used regularly on ████████ of client systems to copy Rimini updates to multiple customers. Specifically, according to AFW records, Rimini copied ████████ files from its network drives to its AFW FTP server during the Post-Injunction Period and was successful in sending ████████ of these files to ████ different customers.[36]

23.   In addition to showing the widespread distribution of AFW itself, these records are further evidence of Rimini's reliance on cross-use to support its update distribution process.

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[31] An expanded discussion of this Scrum-Kanban process is provided in my opening report ¶¶ 40-43 and documented in the analysis of Jira, ¶¶ 88-94.

[32] Astrachan Report ¶ 43 ("When the Rimini-created code is applied to a client's Oracle software environment on the client's computer systems, that entire modified environment … is a derivative work because it substantially incorporates Oracle software (i.e., the software originally on the environment).")

[33] *See, e.g.,* Opening Report ¶¶ 101-107; 243-266; 268-271.

[34] *See, e.g., Id.* ¶¶ 38, 273-282.

[35] Opening Report ¶¶ 114-122, 280.

[36] Opening Report ¶¶ 227, 326; *id.*, Ex. 43. In total, Rimini generated ████████ copies of these files on its systems.

filenames, meaning that Rimini frequently sent the same file to multiple customers.[37] For example, as discussed in my report, Rimini repeatedly sent out the ▮▮▮▮▮▮▮▮ file, which was saved to Rimini's internal system and distributed at least ▮ times to ▮ different clients between December 19, 2018 and July 2, 2019, even though this file contained substantial portions of the PeopleSoft file ▮▮▮▮▮▮.[38] Counting by customer, the AFW records show that ▮▮▮▮▮▮▮▮▮▮▮▮▮[39] received files via AFW TransferFiles.[40]

24.   My report also recounts numerous transfers of Dev Instructions and other allegedly-Rimini-created files from Rimini's systems using the AFW tool TransferFiles.[41] With respect to Dev Instructions, Rimini's AFW TransferFiles records show that Rimini distributed files that include ▮▮▮▮▮▮▮▮▮▮.[42] Grouping these files by Job Number shows that Rimini regularly sent identical copies of Dev Instruction files to ▮▮ of customers at the same time. On at least ▮ separate occasions, Rimini sent the same Dev Instruction file to ▮▮ customers at the same time. In addition, I observed instances where Rimini sent the same file name to a single customer multiple times in quick succession. For instance, Rimini's AFW records indicate that from July 23, 2019 to July 26, 2019, the Rimini user ▮▮▮▮ repeatedly sent ▮▮▮▮▮ to the customer ▮▮▮▮▮ a total of ▮ times.[43] These records show that each transmission has a different job number and occurred at a distinct point in time, with transmissions being roughly 47 minutes apart from one another on average. After these initial transfers, Rimini did not transmit the file for another three days. Then, on July 29, 2019, the same user sent ▮▮▮▮ ▮▮ to ▮▮▮▮▮ at exactly same time (*i.e.*, 7/29/2019 5:26). Moreover, all ▮ transmissions had the same exact job number (*i.e.*, ▮▮▮▮▮▮▮) and used the same HCM200640 update ID. Over the next several days, Rimini users ▮▮▮ ▮▮▮▮▮ continued sending the file to other customers. By August 2, 2019, Rimini had sent the file to a total of ▮ different customers.

25.   These records suggest that during the three days between July 23, 2019 and July

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[37] Opening Report ¶¶ 227.
[38] Opening Report ¶ 189; *id.*, Ex. 47.
[39] Some of the ▮▮ customers had multiple environments.
[40] Opening Report ¶¶ 227.
[41] Opening Report ¶¶ 127-32, 227, 326.
[42] Opening Report, Ex. 43.
[43] BFC Report, Ex. 43.

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26, 2019, Rimini repeatedly modified and resent ▮▮▮▮ to ▮▮▮ as part of an initial prototype development process. Then, during the four days between July 29, 2019 and August 2, 2019, Rimini sent the file to ▮ other customers, with ▮ customers receiving the file simultaneously during a single transmission that occurred at 7:37 PM on July 30, 2019. Based on this, it is my opinion that environment associated with ▮▮▮▮ was being used to support development for the other ▮ customers.

 B. **ASTRACHAN'S ALLEGED "FUNDAMENTAL ERROR #2: ACCUSING COPYING WITHIN A SINGLE CLIENT"**

 26. Professor Astrachan argues that I have cited non-enjoined conduct including Rimini "'copying' or transferring … Oracle files within a single client's environment or between environments owned by the *same* client."[44] Specifically, Professor Astrachan cites my example of "updates to [Rimini's] client ▮▮▮▮," claiming that "[n]othing in the Injunction prohibits Rimini from providing its client with the client's own files."[45] Professor Astrachan has misinterpreted my report in at least three ways. First, my analysis shows Rimini transferring files from a third party's computer systems (*i.e.,* Windstream) to ▮▮▮▮. Second, in addition to showing a violation of Injunction Paragraph 5, the similarity between the files distributed to ▮▮▮▮ and the files distributed to other Rimini customers is evidence of Rimini's common development efforts. Finally, in addition to distributing Oracle software from Windstream systems to ▮▮▮▮, Rimini also distributed updates to ▮▮▮▮ via email, showing that these updates were also saved to Rimini-internal computer systems.[46]

 27. As explained in paragraphs 331-332 of my report, Rimini hosts and distributes ▮▮▮▮' (and certain other customers') updates via Windstream FTP servers and sends delivery announcement emails notifying the customers when new files are available on the FTP servers. Where these update files include PeopleSoft software, documentation, or derivative works, this violates Paragraph 5 of the Injunction, which provides that Rimini shall not reproduce such files "on, with, or to any computer systems other than a specific licensee's own computer systems." As I address in my report[47] and explain *infra*, the Windstream servers are

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[44] Astrachan Report ¶ 35.
[45] Astrachan Report ¶ 36.
[46] Opening Report ¶¶ 327-328; ▮▮▮▮-SUB00000208.
[47] Opening Report ¶ 168 (noting that Rimini customers generally had very little access to the Windstream

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42.   Professor Astrachan's opinion is further undermined by Rimini's use and treatment of Dev Instructions. For one, AFW TransferFiles records show that on multiple occasions, Rimini sent the same Dev Instruction file to the same customer more than once.[73] This suggests the Dev Instruction was being modified and resent, such as in a scenario where something is being tested and modified and re-tested in quick succession. It is my opinion that if Dev Instructions were merely "guidance and notes," there would be no reason to revise and distribute them to customers multiple times. Similarly, I understand that Rimini put into place an entire process for its legal team to review the Dev Instructions documents Rimini's developers create. Based on my 35 years of forensic software analysis experience, such a process suggests that the document being reviewed is a substantive and formal document that goes far beyond any notes about solving a problem generally. Finally, I understand that Rimini has conceded that it ██.[74] This fact alone indicates to me that Rimini developers do not create Dev Instructions from, or limit the contents of Dev Instructions to their own knowledge or know-how, much less solely in connection with work for only that customer. Instead, this suggests, at a minimum, that Rimini developers are taking notes from one customer's PeopleSoft software, as they look at it, for use with other customers. This is cross-use—using one customer's environment for the benefit of other customers.

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knowledge gained from performing an action."), 127:8-10 ("I think **a printout of Oracle code would not be something that I considered nor -- know-how")**, 127:13-20 ("Q If a developer memorized Oracle copyrighted code and then retyped it somewhere else, would that be the use of know-how? A The definition of know-how I gave previously was knowledge gained from performing an action. I think I would not consider memorizing to be the knowledge gained. But obviously, it would adhere to that definition."), 128:1-4 ("I think that, **if somebody memorized code and then wrote it down, that would not be what I meant by knowledge gained from performing an action.**"), 128:16-18 ("No, it's not my opinion that Rimini is only using know-how. **They write code. That's not know-how.**") (emphasis added).

[73] For example, ██████████████ was designated a Scrum client for update HCM200505. Ex. 40. On three separate occasions, each less than a day apart, a Rimini engineer sent the customer-associated environment a file named "HCM200505 Dev Instructions - ATTNY CLIENT COMM PRIV.txt" Ex. 43 (see time indexes 5/6/2019 5:48:49 AM, 5/6/2019 8:41:57 AM, 5/7/2019 4:32). I understand that Rimini has not produced a file with this file name and is refusing to, or cannot, identify a file with identical contents. To the extent Rimini produces and identifies these three files, I reserve the right to supplement my report.

[74] ECF No. 1297, Opp. to Oracle's Mot. to Compel at 22 ████████████████████████████████ ███ ███████████).

make up the visual representation displayed on the screen."[128]

71.   Professor Astrachan's statement does not rebut my conclusion that the displayed code is copied to Rimini's systems. Astrachan does not explain the relevant distinction between code being encoded as text and stored in memory as opposed to code being encoded as an image and stored in memory. The encoding format does not affect a human's ability to read it when it is displayed on a screen. Indeed, all information in a computer is stored as an encoded value. For example, a letter may be encoded in a computer as a ".txt" document where the ones and zeros in the computer memory are read and processed into Unicode characters and then printed out and displayed, or may be scanned and stored as a .bmp or .jpg file, which is processed as a series of color values before it is printed or displayed. Both are still a copy of the original letter. Similarly here, since the result is for the copied text to be displayed on the screen of the Rimini employee, Professor Astrachan's report does not rebut my conclusions regarding display adapters.

Barbara Ann Frederiksen-Cross
May 20, 2020

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[128] Astrachan Report ¶ 209.